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ABSTRACT

The teacher and student field-test evaluation results from the Manufacturing and Agriculture Unit of the High School Geography Project are presented in this report. In 1968-69, 26 teachers and approximately 950 students from 22 states participated in the trial use of the 11 activities in this unit. The results indicated that three units received an excellent overall rating and six units received a good overall rating. The overall rating included categories of teacher enjoyment, teacher estimate of effectiveness, student interest, and student estimate of worth. Teacher recommendations for revisions on each of the individual activities are also included. The 1968 evaluation results are compared to the 1967 evaluation results in the appendix. (Author/DE)

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MANUFACTURING AND AGRICULTURE
EVALUATION REPORT

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February 14, 1969

DESCRIPTION OF THE LIMITED SCHOOL TRIALS

This is the fourth year during which HSGP limited school trials have been held. Originally the Manufacturing and Agriculture Unit was included as two separate units. As such, both have undergone two years of limited school trials. However, this year is the first time the revised and combined version of the two units has been tried.

The Unit Materials

The unit materials consist of a Teacher's Guide and Student Resources. Also included are tablets, transparencies, three tapes, three packets containing the necessary materials for the Game of Farming and a number of exercises in a student manual.

The unit has nine integral activities, as well as, two optional ones. The integral activities related to Manufacturing are: Activity One, "Geographic Patterns of Manufacturing;" Activity Two, "The Importance of Manufacturing;" Activity Three, "Location of the Metfab Company," and Activity Five, "Graphic Examples of Industrial Location." The two optional activities also relate to Manufacturing. All the activities related to Agriculture are integral. They are: Activity Seven, "Hunger;" Activity Eight, "The Agricultural Realm;" Activity Nine, "Interviews with Farmers;" Activity Ten, "The Game of Farming" and Activity Eleven, "Enough Food for the World?"

The Teachers

Twenty-nine teachers were selected for the 1968-69 trials. They are located in 22 different states throughout the country, 26 of them in public schools and three in parochial schools. There is reason to believe that they are considerably above average in teaching experience and in their understanding of geography. The average teaching experience of the group is about nine years, which compares to eight for the 1967-68 trials. They have had on an average 34 hours of geography in their college background. This is an average of 7 more hours than last year and twice that of two years ago. Their average teaching experience in the field of geography is about 4 and one-half years. Eighteen of them spend more than 50 per cent of their time teaching geography. Twenty of them have participated in NDEA or NSF Institutes. Ten are teachers in city schools, 15 teach in suburban schools and 4 teach in rural schools. Also, 13 of the 29 teachers taught HSGP materials in earlier trials.

The Students

Each of these teachers had one or two classes of students. Approximately 950 students participated in all. Thirty eight per cent are in ninth grade, 26 per cent are in tenth grade, 10 per cent are in eleventh grade and 26 per cent are in twelfth grade. The proportion of tenth graders is somewhat higher than in previous years. The eleventh and twelfth graders comprise about one-third of the students as they did last year. Thus, as for last year's trials, this is probably a more mature group of students than those taking geography in American high schools.

In addition they have a higher verbal aptitude than expected for the ultimate users of the material. The mean for the whole group is the 64th percentile. This is just one percentile lower than last year. The ninth graders rank at the 75th percentile, the tenth graders at the 56th percentile, the eleventh graders at the 53rd percentile and the twelfth graders at the 60th percentile.

Also it may be of interest to note that four teachers estimate that their students are from low income families, fifteen that their students are from median income families and ten teachers that their students are from high income families.

The Evaluation Instruments

A number of instruments were used to obtain information on which to base this evaluation report. Estimates of verbal aptitude were obtained by administering the verbal section of the Cooperative School and College Ability Test (SCAT) Form 3B. Information about the teachers was obtained by a background information questionnaire.

Teachers and students filled out evaluation forms at the conclusion of each activity and at the conclusion of the unit. Copies of these evaluation forms are included at the end of this report.

Test results for students are derived from a pool of 200 test items. These 200 items were divided into four test forms. For the first administration, a random sample of students was assigned to each test form. Through a rotation system the item pool can be administered 4 times without any one student taking the same test item twice. Thus far the test item pool has been administered three times: once before The Geography of Cities Unit, once at the conclusion of the Cities Unit, and again at the conclusion of the Manufacturing and Agriculture Unit. Of the 200 items, 32 of them pertain to the Manufacturing and Agriculture Unit. These 32 items will be summarized in a later report.

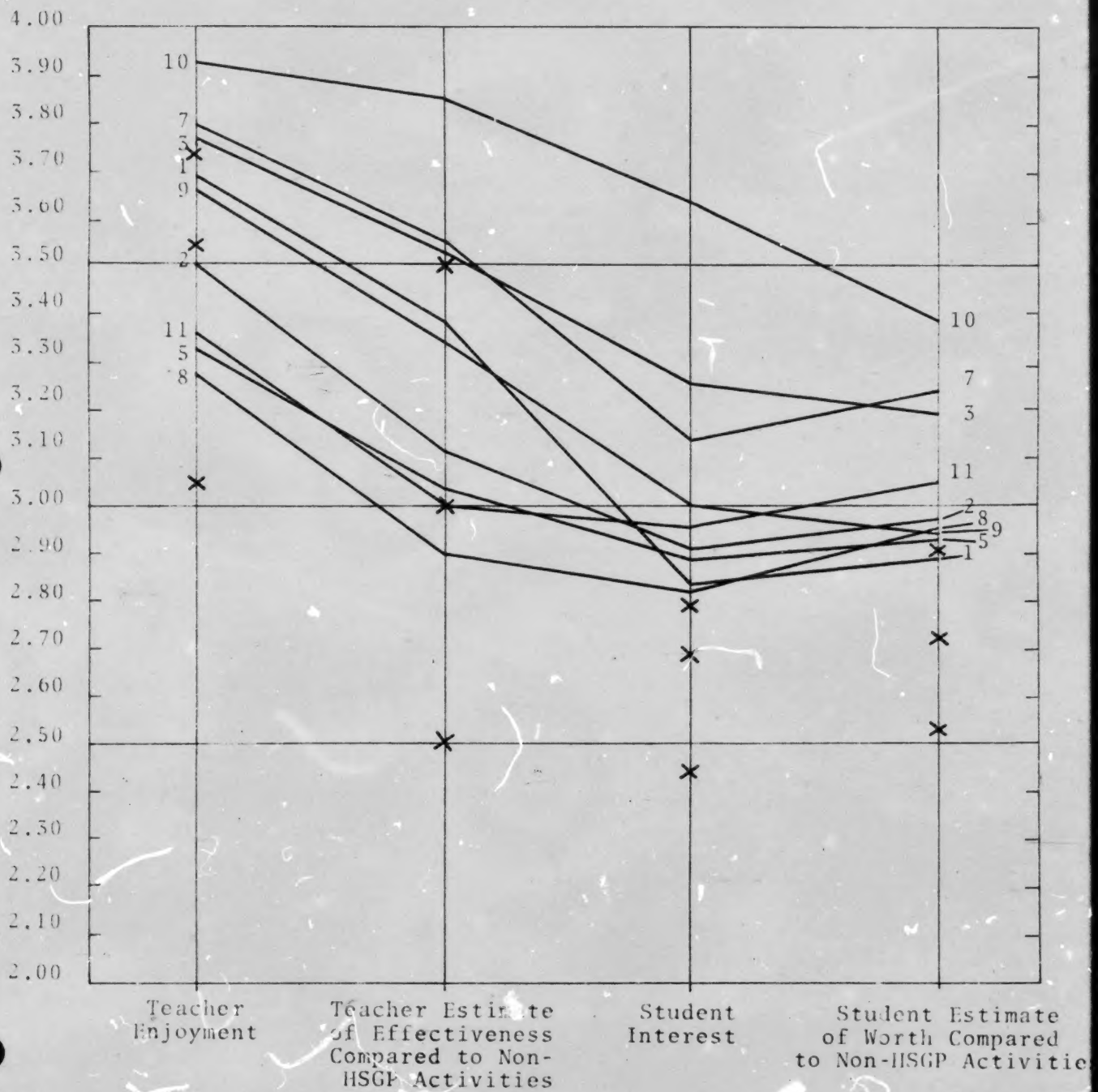
THE UNIT AS A WHOLE

In its first trial, as a combination of the original Manufacturing and Agriculture Units, Unit II was exceptionally well received. In terms of student interest 86 per cent of the students expressed a positive attitude toward the unit. This is significantly better than The Geography of Cities Unit which was thought interesting by 81 per cent of the students. The unit's success can also be seen in the fact that 89 per cent of the students felt the Manufacturing and Agriculture Unit was more worthwhile than the units they undertake in their other classes. This figure compares with an 84 per cent figure on the same index for Unit I.

Teachers, too, were enthusiastic about Unit II. When they were asked how they enjoyed teaching it, twenty-one of the twenty-seven said they enjoyed it very much, while the remainder said they generally enjoyed it. This is a significantly better response than Unit I received.

Teacher and Student Ratings of Manufacturing and Agriculture Unit Activities

1968-1969



The activities above the first quartile are considered "excellent," those between the first quartile and the median "good," those between the median and the third quartile "fair," and the remainder "poor." In the table that follows, each of the integral activities in Unit II is given a rating which could be from poor to excellent on each of the four criteria. These ratings are summarized in the form of the overall rating. The strength of the unit is apparent when it is noted that all activities received an overall rating of at least good with three activities considered excellent.

Value Ratings of Manufacturing & Agriculture Unit Activities

<u>Activity Number</u>	<u>Teacher Enjoyment</u>	<u>Teacher Estimate Effective</u>	<u>Student Interest</u>	<u>Student Estimate of Worth</u>	<u>Overall Rating</u>
1	Good (+)	Good	Excell.(-)	Good (+)	Good (+)
2	Fair (+)	Good (-)	Excellent	Excellent	Good
3	Excellent (-)	Excellent	Excellent	Excellent	Excellent
5	Fair	Good (-)	Excellent	Excellent	Good
7	Excellent	Excellent	Excellent	Excellent	Excellent
8	Fair	Fair	Excell.(-)	Excellent	Good
9	Good	Good	Excell.(-)	Excell.(-)	Good (+)
10	Excellent	Excellent	Excellent	Excellent	Excellent
11	Fair	Good (-)	Excellent	Excellent	Good

On the final questionnaire teachers were asked to rate all activities in terms of their importance to the unit and in terms of the amount of revision that each needs. Activities 2, 3, 7 and 10 were thought by all teachers to be important for the unit. Most teachers felt activities 1, 5, 8, 9, and 11 were important, though a small per cent in each case indicated that these activities could be made optional or dropped from the unit. Between a third and a half of the teachers indicated that activities 4 and 6 could either be made optional or dropped from the unit. In terms of the teacher estimate of the amount of revision needed in the unit, all activities are thought to need some relatively minor revisions, with no activity apparently needing very serious revision.

Recommendations on Individual Activities

Activity 1 - Geographic Patterns of Manufacturing

The initial activity in the Manufacturing and Agriculture unit received an over all rating of good with an excellent rating in terms of student interest.

1. Allow two days teaching time rather than the present one day.
2. Consider having students work in pairs rather than individually in matching the maps with the descriptive paragraphs. Carne, Darr, Mohr, Healy.
3. Consider expanding slightly the background information on steel-making and beer so that teachers have a basis for distinguishing the two distributions, e.g. the Birmingham steel area. Several teachers indicated that their students had difficulty identifying the map of steel industry locations. Map C seems to students as appropriate as Map D which is indicated as the correct answer. Sister Helen, Marran, Oswald, Fahner and Carne.

Also in this regard there is an apparent inconsistency between the Geography of Cities unit and Manufacturing and Agriculture. In the activity "Cities with Special Functions", Sparrow's Point, Maryland is said to house the world's largest steel plant. However, in Map D where the distribution of steel plants is shown there are no steel plants in Maryland. Sister Helen.

4. Consider including paragraphs in the Student Resources for beer production and commercial flour milling. Jones, Anderson.

Activity 2 - The Importance of Manufacturing

While receiving an overall good rating, The Importance of Manufacturing was better received by students than teachers. In terms of the teacher enjoyment and teacher estimate of effectiveness indices the activity was rated fair to good but on the indices of student interest and estimate of worth it was rated excellent.

1. Consider ways of increasing student involvement. Three teachers indicated the activity needs some mechanism to increase student involvement. Fahner, Becker, Van Valkenburg. One teacher felt that the activity relies too heavily on teacher-led discussion. More student interaction might be achieved by having some of the discussion questions considered first in small groups then by the class as a whole. Fahner.

2. Reexamine the discussion questions. Four teachers indicated that the suggested questions for class discussion were a problem. Bloomer, Fahner, Healy, Van Valkenburg. The paragraph following the third question on page 16 of the Teacher's Guide was thought confusing by one teacher. Carne.
3. Consider putting activity two before activity one. Two teachers suggested that the importance of manufacturing should be established before its distribution in the U.S. was investigated. Cason, Oswald.

Activity 3 - Location of the Metfab Company

The Metfab activity is one of the outstanding activities in the unit, receiving an excellent rating on all four evaluation indices. The one consistent criticism of the activity made by teachers is that it is difficult for the slower students in their classes. Considering that the students involved in HSGP school trials are generally well above the national average in ability, this may be a serious problem when the materials are used in more typical situations.

1. Indicate that 5 to 6 days teaching time is needed rather than the presently recommended 6 days.
2. Simplify, or give better directions for the use of the tables in the Student Resources. Seven teachers indicated that their students were confused about how to use them. Antonelli, Barnes, Becker, Blackstone, Marran, Mohr, Paeltz.

Of particular concern to the students of two teachers is the President's Potential Markets Table on page 19 of the Student Resources. It appears that either the directions are incorrect or the table itself is in error. Clarify, too, which competitors go with which city so that the market competition ratio represents a less debatable figure. Bloomer, Van Valkenburg.

3. Consider expanding the explanation of each official's role. Three teacher's requested more detail in this regard. Bloomer, Cason, Jones.
4. Consider including information in the Teacher's Guide about the steel fabrication operation. Two teachers wished that they knew more about the business that the Metfab Company is supposed to be in. Becker, Sister Helen.
5. Check the last paragraph on p. 20 and number 1 on page 22 in the Student Resources. There is an apparent contradiction about transportation costs. Livers.

Activity 4 - Metfab in the U.S.S.R.

Metfab in the U.S.S.R. is an optional activity and was taught in this year's trials by only eleven teachers. In terms of how much teachers enjoyed the activity its rating is fair. In terms of the teacher's estimate of effectiveness it received a good rating. Since students were not asked to evaluate the optional activities in this unit, there are not ratings for student interest or student estimate of effectiveness. We can assume, however, that these ratings would be somewhat better because students have consistently been more positive about the activities of this unit than the teachers have been.

1. Consider including additional mapped data of the physical features of the Soviet Union.

None of the maps of the U.S.S.R. show the location of such basic geographic features or areas as the Ukraine, the Ural Mountains, the Volga River, Siberia, etc., even though they are mentioned often in the readings. Sister Helen.

Also with regard to map changes, the map on page 35 of the Student Resources should be altered slightly. Move number 3 representing one of the recommended sites for Metfab from Kursk to Kharkov where it is said to be in the description on page 38. Carne.

2. Consider including transparency masters of the maps in the Student Resources. Carne.
3. Consider making the activity integral. Two teachers felt the activity was indispensable in teaching students about values outside of our culture. Cason, Matthews. However, on the final questionnaire fifteen teachers said it could be optional or deleted.

Activity 5 - Graphic Examples of Industrial Location

Activity five received an overall rating of good. In terms of student interest and student estimate of worth, however, it was rated as an excellent activity.

1. Allow two teaching days instead of the presently recommended one day. Seven teachers specifically mentioned the need for more time. The trial teachers this year spent ninety minutes or about two teaching days on the average in teaching the activity.

2. Review the structure and sequence of the questions in the Teacher's Guide. Seven teachers indicated that there are problems in the questions. One teacher commented that they do not generate discussion. Fahner. Another teacher suggested including the questions found on pages 35-36 of the Teacher's Guide in the Student Resources. Jones.
3. Consider including more complete directions for the students. Three teachers mentioned this need. One particular point in this regard is the need for an explanation of the rationale for the differences in the sizes of the circles used in the diagramming exercise. Marran.
4. Check the relative importance of the factors exerting a pull on the location of the steel industry. One teacher indicates that Alexander's text on Economic Geography gives a different interpretation than HSGP does. Lievers.
5. Consider expanding the information provided about the industries to be diagrammed. Oswald, Kelly, Sister Hermana.

Activity 6 - Two Case Studies

Two Case Studies is an optional activity which was taught by only seven teachers in this year's trials. The activity was rated fair on both teacher indices. Student interest and estimate of effectiveness is not available for optional activities.

1. Review the readings and simplify structure and vocabulary where possible. Two teachers indicated that their slower students had difficulty with them. Blackstone, Fahner. In addition consider including some questions with the readings in the Student Resources. These questions should be more specific than the discussion questions and would serve to focus the student attention on the important characteristics of the two industries. Fahner.
2. The map on page 51 of the Student Resources does not show hotels, restaurants, theaters and air terminals that it is purported to show in a reference on page 52. Schulteis.

Activity 7 - Hunger

The Hunger Activity was rated as an excellent activity by both teachers and students. On their final evaluation 24 teachers rated this activity as essential to the unit. Only 6 teachers felt that it needed even slight revision.

1. Allow two to three days rather than two.

2. Consider illustrating hunger in a more forceful manner. Several teachers had some difficulty in convincing their well fed classes that hunger is a widespread and devastating problem. Six teachers suggested additional reading regarding hungry peoples. Four suggested that it be in the form of more data about the hungry areas of the world. Jones, Puckett, Blackstone, Marran. Two suggested the reading should be in the form of a "vivid" description of what happens to an undernourished person. Darr, Lievers. Four teachers recommended visual aids in the form of slides or pictures portraying starving peoples. Dale, Evans, Kelly, Smith.
3. Consider some student activity to break the monotony of read and discuss. Fahner, Van Valkenburg.
4. Reconsider the film recommendations. Five teachers indicated that the film is unavailable for some time. Rondeau, Becker, Sister Heien, Mohr, Oswald. Suggestions by teachers include: "India and Her Food Problem," "Hunger USA," and "Japan: Answer in the Orient." Also, include the name of the producer of the film. Apparently there is more than one film entitled "Population Explosion."

Activity 8 - Agricultural Realm

While the activity received an overall rating of good, it was less well received by teachers than by students. On the two student indices the activity received an excellent rating while teachers rated the activity only fair. It is worth noting that the activity is considerably improved this year over last year on all indices.

1. Suggest a three to four day allotment rather than 2 1/2 to four days
2. Review carefully the questions listed for class discussion in Part I "A Survey of the Realm." Three teachers indicated that the questions there were a problem. Fahner, Jones and Marran. Several of the questions on page 52 are strictly yes or no type questions which are not likely to lead to much discussion. For example: "Does this distribution relate to any of the previous distributions?" "Do you find much land devoted to it in Equatorial regions?" Fahner, Marran.
3. Consider the possibility of using multi-color transparency overlays for comparing the mapped distributions. Three teachers indicated that superimposing several transparencies that are black and white cannot be done effectively. Sisters Helen, Beatus, and Hermana.
4. Review and simplify the readings in the Student Resources where possible. Seven teachers indicated the readings were too difficult for their below average students.

Activity 9 - Interviews With Farmers

In terms of teacher and student attitudes this is a good activity. The positiveness of teachers is especially important for an activity that takes more than a week of class time.

1. Consider reducing the number of interviews to three or four. Seven teachers indicated that five were too many for most students. Since all teachers did not use all five interviews, the 25% supporting this recommendation is probably a conservative figure.
2. Correct the Teacher's Guide references to which interviews are on each tape.
3. Consider inclusion of more visuals. Two teachers recommend closeup photos of milo and corn.
4. Provide help for such words as "herbicides" and "lodges." Even what an acre is might be helpful for urban students.
5. Consider providing additional background information; one teacher mentions government farm support policies for students and two mention geographic information on each area for teachers.

6. A few teachers commented on the accents of the farmers. See Rondeau for Yomura's "Charlie Chan" image.
7. Sister Helen suggests that varied procedures with respect to the questions might help. For example, groups of two or three working and then reporting to the class for interviews one and two, groups working but not reporting for three, and full class discussion for four and five.

Activity 10 - Game of Farming

The Game of Farming was rated excellent by both teachers and students. It ranks with Portsville as one of the two most highly rated activities in the Geography in an Urban Age Course.

1. Check all cards and activity sheets carefully for errors. The following errors were brought to our attention by teachers.
 - A. P. 82, TG - 1880 example, allocation should be made to beef, not dairy cattle.
 - B. P. 94 and pp. 108-109, TG - 1919-21 examples, allocation of 1,800 for beef cattle is in error.
 - C. P. 110, TG - 1933 example, allocations for cost of living, indebtedness and labor are printed one line too low. There is no allocation for irrigation made as there should be.
 - D. PP. 111-112, TG and student activity sheets 1933-35--allocations for cost of living, payment on indebtedness and labor are all one line too low.
 - E. 1921 outcome card under irrigated crops should read corn, not dairy cattle.
2. Consider removing the dotted lines that designate 40 acre units on the 1919-21 entries and the 1933-35 entries.

Two teachers said they only served to confuse students. Sister Helen, Lievers.

3. Consider putting a limit on the amount that can be invested in hogs for the 1919-21 and 1933-35 entries.

One teacher said her students were investing their total capital in hogs and not "farming" their land. Sister Helen.

Activity 11 - Enough Food for the World?

Enough Food for the World was rated a good activity. It was better received by students than by teachers. Students ranked it excellent in both categories, where as teachers rated it fair regarding their enjoyment in teaching the activity and good regarding the effectiveness of the activity.

1. Include a more detailed explanation of the activity in the Teacher's Guide so that teachers can distinguish its purpose from that of the Hunger Activity.

Four teachers felt the activity was a repetition of the Hunger Activity. Mohr, Darr, Kelly, Paeltz.

2. List other sources for information about the problem.

Four teachers said the Student Resources did not include enough detail to make the activity worthwhile. Mohr, Kelly, Anderson, Sister Helen.

Three teachers suggested supplementing the activity with student work related to recent newspaper and magazine articles. Blackstone, Hermana, Jones.

Two teachers suggested the use of visual aids such as pictures or films. Hermana, Nelson.

3. List additional ways that students can report the information they have researched besides a class discussion.

Four teachers noted that the let-down after the Game of Farming was difficult to cope with and felt something more exciting than just an ordinary discussion was needed.

Three teachers suggested panel led discussions. Van Valkenburg, Sister Helen, Sister Hermana.

One teacher used the debate method.

2/14/69

Appendix A

1968 HSGP Activities Compared to
1967 norms

1. Teacher Enjoyment Index

1967 Activities Ranked

- | | |
|--------------------------------------|------|
| 1. Game of Farming | 4.00 |
| 2. Portsville | 3.92 |
| 3. Intro. to Japan | 3.90 |
| 4. Trend toward
Uniformity Cities | 3.85 |
| 5. Local Community Study | 3.78 |
| Bigger Beef | 3.78 |
| 7. Hunger | 3.73 |

1st Quartile

1968 Activities Ranked

- | | |
|----------------------------------|------|
| Story of Portsville | 3.97 |
| Game of Farming | 3.92 |
| Cities with Special
Functions | 3.83 |
| Hunger | 3.79 |
| Metfab | 3.76 |
| Geog. Patterns of
Manuf. | 3.69 |
| Interviews with
Farmers | 3.68 |
| New Orleans | 3.68 |
| City Location &
Growth | 3.5 |

- | | |
|--------------------------------------|------|
| 8. Site Selections | 3.67 |
| Case Studies Mitaka,
Niike | 3.67 |
| 10. Cattle | 3.65 |
| 11. Life of a Japanese
Family Man | 3.60 |
| 12. A Lesson from Sports | 3.57 |
| 13. Interviews with
Farmers | 3.54 |

Median

1967 Activities Ranked

14.	Modernization and Pop. Growth-Japan	3.50
15.	Time-Distance	3.44
16.	Hunger Revisited	3.33
17.	Games Illustrating Spread of Ideas	3.22
18.	Canada	3.11
19.	Bruges	3.07

3rd Quartile

20.	A Few American Cities	3.04
21.	Agricultural Realm	3.00
22.	European Expansion	2.96
23.	Dist. of Econ. Act. in Japan	2.88
24.	Models of City Form	2.83
25.	Pop. in Pre Mod. Japan	2.70
26.	Red. of Pop. in Japan	2.67

1968 Activities Ranked

Importance of Manufacturing	5.50
Enough Food for the World	3.35
Graphic Ex. of Ind. Loc.	3.32
Agricultural Realm	3.28
Shopping Trips & Trade Areas	3.25
Metfab USSR	3.22
Models of City Form	3.11
Time, Place & the Model	3.05

A model of settle-
ment Systems 2.74

Appendix A

II. Index of Teacher Estimate of Effectiveness for 1968 Activities*

1. Portsville	3.86
2. Game of Farming	3.85
3. New Orleans	3.57
4. Location of Metfab Hunger	3.55
6. Geog. Patterns of Manuf.	3.39
7. Interviews with Farmers	3.38
8. City Location & Growth	3.36
9. Cities with Special Functions	3.30
10. Importance of Manufacturing	3.08
11. Graphic Ex. of Ind. Location	3.04
12. Enough Food for the World Shopping Trips and Trade Areas	3.00
14. Agricultural Realm	2.86
15. Time, Place and the Model	2.85
16. Models of City Form	2.67
17. A Model of Settlement Systems	2.22

* There are no norms for 1967 on this index

2/14/69

Appendix A

1968 Activities Compared to
1967 Norms

III. Student Estimate of Interest

<u>1967 Activities Ranked</u>		<u>1968 Activities Ranked</u>	
		Game of Farming	3.69
		Story of Portsville	3.69
1.	Game of Farming		
	3.59		
2.	Story of Portsville		
	3.34		
		Metfab	3.26
		New Orleans	3.15
		Hunger	3.13
		City Location and Growth	3.13
		Cities with Special Functions	3.01
		Interviews with Farmers	3.00
3.	Site Selection		
	2.98		
		Enough Food for the World	2.95
		Importance of Manufacturing	2.93
4.	Cattle		
	2.85		
	Interviews with Farmers		
	2.85		
	Games Illustrating the Spread of Ideas		
	2.85		
		Graphic Examples of Industrial Location	2.88
		Geographic Pattern of Manufacturing	2.84
7.	A Lesson from Sports		
	2.81		
		Agricultural Realm	2.83
First Quartile			
8.	Hunger		
	2.79		
9.	Life of a Japanese Family Man		
	2.78		

1967 Activities Ranked1968 Activities Ranked

Models of City Form 2.75

Shopping Trips and Trade
Areas 2.75

10. Agricultural Realm 2.73

11. Models of City Growth 2.72

12. Bigger Is Better 2.71

13. Trend Toward Uniformity
in Cities 2.69

Median

14. Hunger Revisited 2.68

15. A Few American Cities 2.66

16. Local Community Study 2.63

Time, Place and the Model 2.62

17. Canada 2.51

Time-Distance 2.51

19. European Expansion 2.48

A Model of Settlement
Systems 2.48

3rd Quartile

20. Bruges 2.44

21. Introduction to Japan 2.43

22. Case Studies: Mitaka
and Niiike 2.4123. Modernization and
Population Growth 2.2724. Redistribution of Pop-
ulation in Japan 2.0525. Population in Pre-
Modern Japan 2.0426. Distribution of Economic
Activities in Japan 2.00

Appendix A

1968 Activities Compared to 1967 Norms

IV. Student Estimate of Worth Index

1967 Activities Ranked

- | | |
|------------------------|------|
| 1. Game of Farming | 3.45 |
| 2. Story of Portsville | 3.40 |

- | | |
|----------------------------|------|
| 3. Interviews with Farmers | 3.04 |
|----------------------------|------|

- | | |
|-----------|------|
| 4. Cattle | 2.93 |
|-----------|------|

- | | |
|------------------------------|------|
| 5. Games Illus. Spread Ideas | 2.90 |
|------------------------------|------|

- | | |
|-------------------|------|
| 6. Site Selection | 2.89 |
|-------------------|------|

- | | |
|-----------|------|
| 7. Hunger | 2.88 |
|-----------|------|

1st Quartile

- | | |
|-------------------------|------|
| 8. A Lesson from Sports | 2.84 |
|-------------------------|------|

- | | |
|--------------------------------|------|
| 9. Life of a Japanese Fam. Man | 2.80 |
|--------------------------------|------|

- | | |
|--------------------|------|
| Agricultural Realm | 2.80 |
|--------------------|------|

- | | |
|---------------------------|------|
| 11. Models of City Growth | 2.79 |
|---------------------------|------|

1968 Activities Ranked

- | | |
|-----------------|------|
| Game of Farming | 3.38 |
|-----------------|------|

- | | |
|---------------------|------|
| Story of Portsville | 3.27 |
|---------------------|------|

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|--------|------|
| Hunger | 3.22 |
|--------|------|

- | | |
|--------|------|
| Metfab | 3.17 |
|--------|------|

- | | |
|--------------------|------|
| City Loc. & Growth | 3.06 |
|--------------------|------|

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|---------------------------|------|
| Enough Food for the World | 3.05 |
|---------------------------|------|

- | | |
|-------------|------|
| New Orleans | 3.00 |
|-------------|------|

- | | |
|-----------------------------|------|
| Importance of Manufacturing | 2.96 |
|-----------------------------|------|

- | | |
|--------------------|------|
| Agricultural Realm | 2.93 |
|--------------------|------|

- | | |
|-----------------------------|------|
| Special Functions of Cities | 2.92 |
|-----------------------------|------|

- | | |
|--------------------------|------|
| Graphic Ex. of Ind. Loc. | 2.91 |
|--------------------------|------|

- | | |
|------------------------|------|
| Interview with Farmers | 2.91 |
|------------------------|------|

- | | |
|---------------------|------|
| Models of City Form | 2.89 |
|---------------------|------|

- | | |
|-------------------------------|------|
| Geographic Patterns of Manuf. | 2.87 |
|-------------------------------|------|

- | | |
|-----------------------------|------|
| Shopping Trips & Trade Area | 2.79 |
|-----------------------------|------|

1967 Activities Ranked

- | | | |
|-----|------------------|------|
| 12. | Bigger Beef | 2.73 |
| 13. | Hunger revisited | 2.71 |

Median

- | | | |
|-----|---------------|------|
| 14. | Time Distance | 2.71 |
|-----|---------------|------|

- | | | |
|-----|------------------------------|------|
| 15. | Trend Toward Unif.
Cities | 2.67 |
|-----|------------------------------|------|

- | | | |
|-----|--------|------|
| 16. | Canada | 2.62 |
|-----|--------|------|

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| 17. | Local Community Study | 2.58 |
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| 18. | European Expansion | 2.57 |
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| 19. | A Few American Cities | 2.56 |
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| 20. | Bruges | 2.52 |
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| | Case Studies Mitaka,
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| 22 | Redist. of Pop. in
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| 23. | Mod. & Pop. Growth
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| 24. | Intro. to Japan | 2.37 |
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| 25. | Pop. in Pre Mod. Japan | 2.28 |
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| 26. | Dist. of Econ. Acti-
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